



JOB CREATION BY STARTUPS AND YOUNG COMPANIES

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ISSUE

How do startups and young companies contribute to job creation?

SUMMARY

Research suggests that startups and young companies are the main drivers of job growth in the U.S. economy. This report summarizes some of the major research findings on job creation by startups (i.e., firm births) and young companies, drawing largely from papers written by economists for the Kauffman Foundation. According to its [website](#), the Kauffman Foundation is “a private, nonpartisan foundation that aims to foster economic independence by advancing educational achievement and entrepreneurial success.”

The research we reviewed suggests the following:

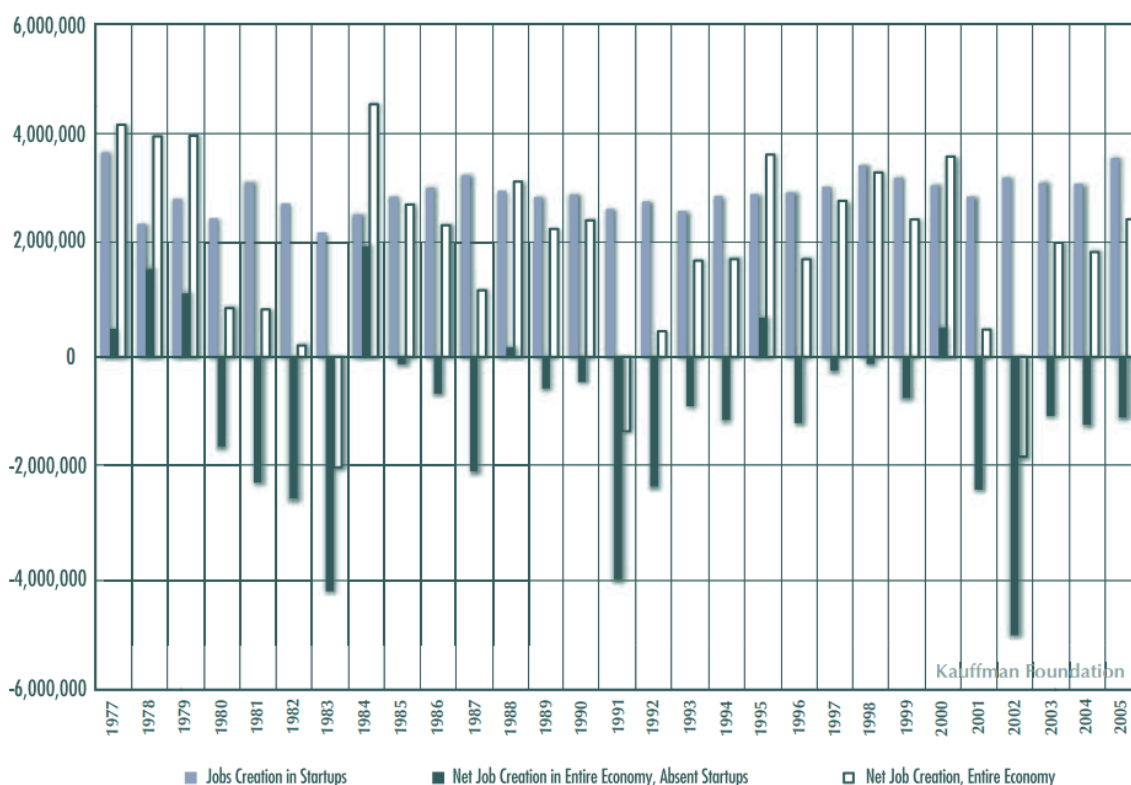
1. Startups are the primary driver of job growth in the U.S. economy, accounting for nearly all net job growth.
2. Firms age five or younger account for roughly two-thirds of net job growth among existing firms.
3. Young firms grow and fail at high rates, exhibiting an “up or out” dynamic.
4. Fast-growing firms account for a disproportionate share of net job creation, and these firms are mostly young.
5. Growing young companies partially make up for the jobs destroyed by young companies that exit the market.

NEW AND YOUNG FIRMS DRIVE JOB GROWTH

New Firms

Research shows that startups are the primary driver of job creation in the U.S. economy and account for nearly all net new jobs in a given year. According to Kauffman Foundation researchers Dan Stangler and Robert Litan, without a steady stream of startups (i.e., firm births) each year, there would be no net job growth in the U.S. economy ([Where Will the Jobs Come From?](#), November 2009). As Figure 1 shows, job creation by startups has driven net job growth in nearly every year since 1977. However, this is not necessarily due to an inherent superiority of new firms. Instead, according to Kauffman Foundation researchers Stangler and Paul Kedrosky, it reflects the structural dynamics of the US economy. Specifically, it demonstrates that: (1) there is a more or less steady inflow of startups, (2) firm survival rates are relatively consistent from year to year, and (3) surviving firms create and destroy jobs at roughly the same rate, therefore cancelling each other out on a net basis ([Neutralism and Entrepreneurship: The Structural Dynamics of Startups, Young Firms, and Job Creation](#), September 2010).

Figure 1: Job Creation by Startups Compared to Net Job Creation in U.S. Economy



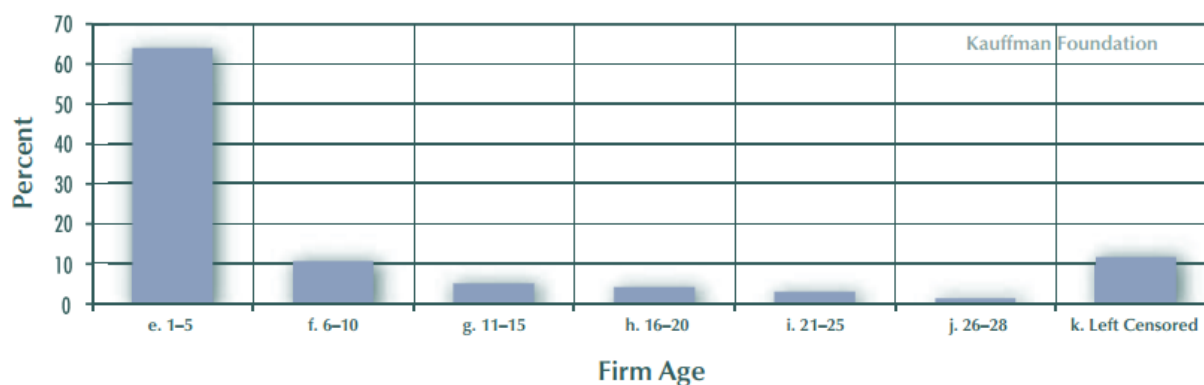
Source: ["Where Will the Jobs Come From?,"](#) Kauffman Foundation

It is important to note that, by definition, startups cannot destroy jobs. Although colloquially we refer to young companies as startups, the U.S. Census Bureau's Business Dynamics Statistics (BDS) data consider a firm a startup only in its first year of operation (year 0), and any jobs destroyed by a startup firm would be counted in year 1. Therefore, net job creation by startups will always be positive because it is not canceled out by job destruction. But this definitional advantage does not inflate their importance. The negative net job creation, shown in dark green in Figure 1, is driven largely by firms that exit the market and destroy jobs in the process. In fact, Litan and Stangler find that net job creation among firms that do not exit the market (i.e., "survivors") is slightly positive, but not enough to make up for jobs destroyed by exiting firms. Because firms inevitably exit the market each year, startups are necessary to keep net job creation positive.

Young Firms

Although startups are the primary driver of net job creation in the U.S. economy, young firms contribute disproportionately to net job growth among existing firms. As Figure 2 shows, firms age one to five account for roughly two-thirds of net job creation. Stangler and Litan note that although the oldest companies (the "left-censored" column in Figure 2) account for the largest share of current employment, the youngest companies account for the largest share of net job creation.

Figure 2: Existing Companies' Net Job Creation by Firm Age



Source: [Where Will the Jobs Come From?](#), Kauffman Foundation

Small Firms

The research on new and young firms driving job growth runs counter to the commonly-held belief that small businesses drive job creation. According to Stangler and Litan, this belief is driven by the fact that roughly half of the U.S. labor force is employed by small businesses (defined as those with 500 or fewer employees). However, Stangler and Litan contend that the distribution of current

employment among small and large businesses does not capture where annual job growth occurs. Although early empirical research found a relationship between firm size and job creation, subsequent studies found significant pitfalls with the studies' supporting data, such as the lack of information on firm age.

Data on firm age is now available through the BDS dataset which became available for public use in 2008. Research using this data shows that it is new and young firms, which are generally also small due to their age, that drive job creation. Haltiwanger et al analyzed BDS data and found that previous findings indicating an inverse relationship between firm size and job growth were due entirely to most new firms being classified in small sizes. In fact, small, mature businesses have negative net job creation (["Who Creates Jobs? Small vs. Large vs. Young,"](#) *Review of Economics and Statistics*, May 2013).

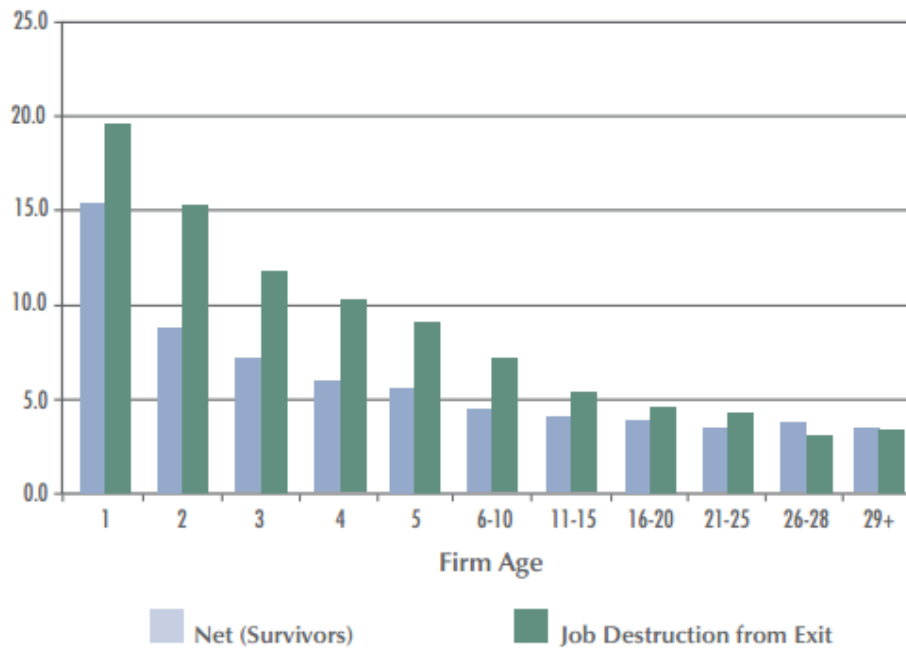
YOUNG FIRMS GROW FASTER THAN OLDER FIRMS, AND THE FASTEST-GROWING FIRMS ARE MOSTLY YOUNG

Research suggests that surviving young firms grow at much faster rates than surviving older firms. As Figure 3 demonstrates, surviving young firms have a net employment growth rate of about 15 percent, compared to four percent for the oldest surviving firms ([High Growth and Failure of Young Firms](#), March 2009). However, young firms also experience high rates of job destruction due to firm exit. Researchers refer to this as the "up or out" dynamic of young firms.

Another way to look at young firms' growth is to see how many of the fastest growing firms are young. At any given time, a small number of firms of all ages are creating a disproportionate number of jobs (these companies are often called "gazelles"). In the United States, according to Stangler, the top five percent of fast-growing firms (measured by employment growth) create, on average, two-thirds of new jobs in any given year, and the top one percent of fast-growing companies create 40% of new jobs in any given year ([High Growth Firms and the Future of the American Economy](#), March 2010).

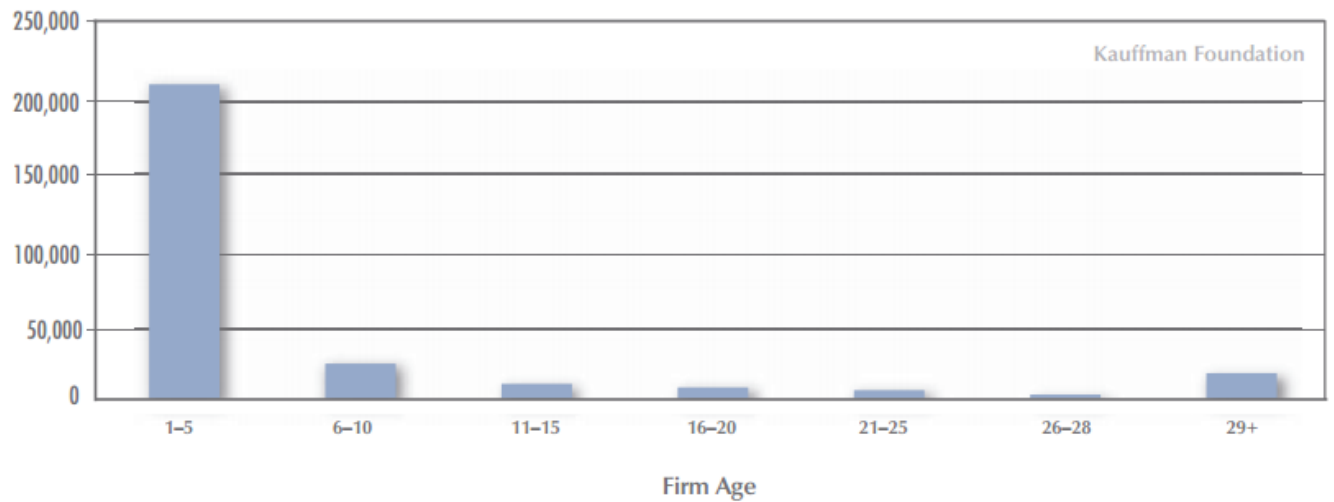
As Figure 4 shows, most of these fast-growing companies are young. In fact, according to Stangler, the fastest-growing young firms account for less than one percent of all companies in the economy, yet generate 10 percent of new jobs each year. Put differently, young gazelles each create about 27 jobs per year, compared to the two or three jobs created at an average firm of any age.

Figure 3: Growth and Destruction Rates from Exit by Firm Age



Source: [High Growth and Failure of Young Firms](#), Kauffman Foundation

Figure 4. Number of Top Five Percent Fastest-Growing Firms by Age



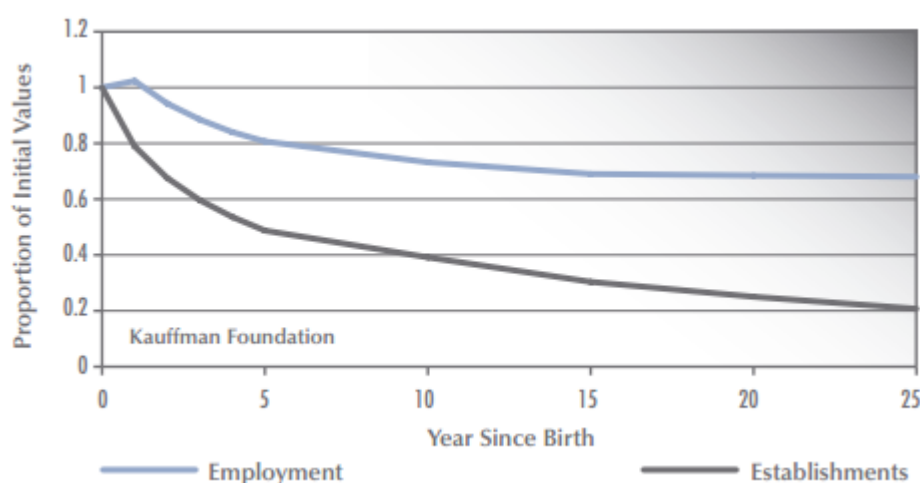
Source: ["High Growth Firms and the Future of the American Economy,"](#) Kauffman Foundation

GROWING YOUNG COMPANIES REPLACE JOBS LOST TO FIRM FAILURE

Young companies fail at higher rates than older companies. Kauffman Foundation researchers Michael Horell and Litan estimate that fewer than half of all new establishments survive to their fifth year ([After Inception: How Enduring is Job Creation by Startups?](#), July 2010). This high failure rate calls the job contributions of startups into question—does the fact that most of the companies will fail in five years, destroying all the jobs they created, diminish the significance of jobs they created? The answer, according to Horell and Litan, is no, because the jobs created by firm entry are more durable than young firm's failure rate would imply. As [Decker et. al.](#) describe, "a small fraction of young firms exhibit very high growth and contribute substantially to job creation. These high-growth firms make up for nearly all the job losses associated with shrinking and exiting firms within their cohort. The implication is that each entering cohort of startups makes a long-lasting contribution to net job creation" ("[The Role of Entrepreneurship in U.S. Job Creation and Business Dynamism](#)," *Journal of Economic Perspectives*, Summer 2014).

As Figure 5 shows, the growth of surviving young companies is so significant that when a given cohort of firms reaches age five, its employment level is 80% of what it had been when the cohort began despite the fact that less than 50% of firms in the cohort remain. In other words, although the number of firms in a given cohort is reduced by more than 50% by the time the cohort reaches age five, the cohort's total employment only goes down 20% because of the growth of the firms that survive.

Figure 5: Total Employment and Establishments in Firm Cohorts as They Age



Source: "After Inception: How Enduring is Job Creation by Startups?" [Kauffman Foundation](#)

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